

ART. XIV.—*On Heat and Molecular Energy.*

BY H. S. PATCHING, ESQ.

[Read 8th November, 1877.]

ART. XV.—*On the History of Palæozoic Actinology in Australia.*

BY R. ETHERIDGE, JUN., F.G.S.

[Read 8th November, 1877.]

THE following condensed account of the study of the corals of the Australian palæozoic rocks may be found of service to those who may hereafter take up the systematic study of this group:—

In the course of the surveying voyage of H.M.S. "Beagle," under the command of Capt. Fitzroy, R.N., during the years 1832-36, Mr. Charles Darwin, F.R.S., naturalist to the expedition, collected two palæozoic corals in Tasmania. These were afterwards described by the celebrated actinologist, Mr. Lonsdale, in Darwin's *Geological Observations on Volcanic Islands*,¹ published in 1844, under the names of *Stenopora Tasmaniensis*, and *S. ovata*. The genus *Stenopora* was established expressly for these species in the work referred to, but was more fully defined in Count P. de Strzelecki's work, published during the next year (1845), *Physical Description of New South Wales and Van Diemen's Land*.² The full definition of the genus was accompanied by the description of two further species—*Stenopora crinita* and *S. informis*³—the former from New South Wales, the latter from Tasmania. In addition to the foregoing Mr. Lonsdale also described in Strzelecki's work another coral as *Amplexus arundinaceus*,⁴ and mentioned the occurrence in the limestones of Yass Plains, New South

¹ London, 1844; 8vo; Appendix, pp. 161-163.

² London, 1845; 8vo; p. 262.

³ *Ibid.*, pp. 264-65; pl. 8, fig. 5.

⁴ *Ibid.*, p. 267.